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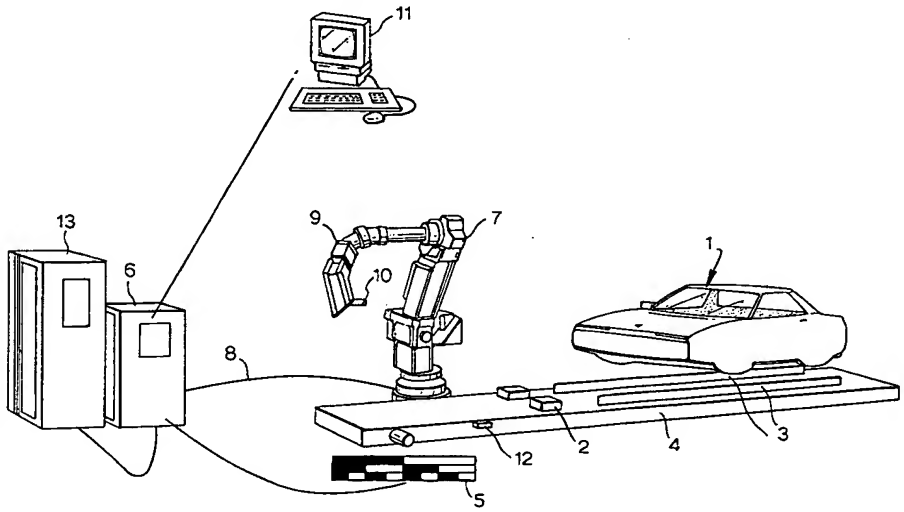
(54) Title: AUTO MOTION : ROBOT GUIDANCE FOR MANUFACTURING



(57) Abstract: A robot manufacturing facility, for example for use in automobile manufacture, includes at least one robot for acting on a workpiece or intermediate product of a pre-calculated shape and dimensions at a pre-calculated position and orientation relative to a reference frame. The robot includes a body or base structure, at least one end effector movable with respect to the body or base structure for acting on workpieces, means for moving the end effector and sensing means for sensing the position of the each effector. The sensing means preferably includes a laser light source carried by the robot and means for detecting laser light, from said source, reflected from the workpiece. The movement of the end effector is controlled according to a predetermined program, modified in accordance with signals from the sending means, so that the robot is able to compensate for departures from pre-calculated values of the position and orientation and/or shape and/or dimensions of the workpiece.

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